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## PATENT ABSTRACTS OF JAPAN

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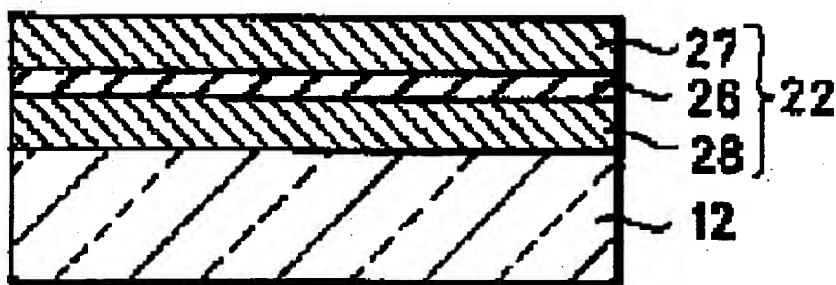
# (54) LAMINATION TYPE TRANSPARENT CONDUCTIVE FILM

(57) Abstract:

PROBLEM TO BE SOLVED: To provide transparent conductive films having a small resistance value and high transmittance.

SOLUTION: The laminated transparent conductive films 22, 32 are composed of oxide transparent conductive thin films 27, 28, 37 and metallic thin films 26, 36 having the sheet resistance lower than the sheet resistance of the former. The sheet resistance over the entire apart of the laminated transparent conductive films 22, 32 is lowered by the metallic thin films 26, 36 and the reflection is lessened by the interference of the oxide transparent conductive thin films 27, 28, 37 and, therefore, the transmittance increases. The transparent conductive films may be formed of a three-layered structure in which the metallic thin film 26 exists between the oxide transparent conductive films 27 and 28 or may be formed of a two-layered structure in which the metallic thin film 36 exists on the rear surface of the oxide transparent conductive thin film 37. The characteristics are particularly good if silver thin films are used for the metallic thin films 26, 36. The corrosion resistance is improved if a corrosion preventive agent, such as gold, is added to these silver thin films.

(a)



(b)

